

Public Information Centre

Stormwater Credit Policy Development

Project lead: Rachel Ellerman, C.E.T
Engineering and Capital Infrastructure Services, City of Guelph
rachel.ellerman@guelph.ca

Consultants: Pippy Warburton, P.Eng., AECOM
and Mike Gregory, P.Eng., CHI



Agenda

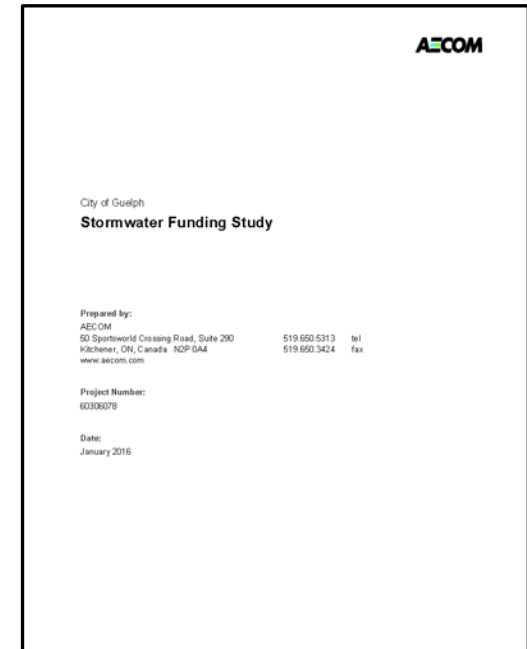
- Welcome
- Purpose
- Background
- Developing a credit policy
- Credit program examples
- Open discussion
- Next steps

guelph.ca/stormwater

The screenshot shows the City of Guelph website page for the Stormwater Funding Study. The page features a blue header with the City of Guelph logo and a search bar. Below the header is a navigation menu with links for Living, Business, City Government, Careers, Visit Guelph, Newsroom, and How can we help you?. The main content area includes a breadcrumb trail: Home » Living » Environment » Water » Stormwater » Stormwater Funding Study. The title of the page is "Stormwater Funding Study". Below the title are social media sharing icons for Facebook, Twitter, Print, Email, and a plus sign, followed by a comment count of 6. The main text states: "In August 2013, the City of Guelph started the **Stormwater Funding Study** to explore alternative ways to pay for its stormwater management program. The City obtained the services of AECOM, an engineering consulting firm, to assist in the completion of this stormwater funding study." On the right side of the page, there is a "Water" section with a list of links: Stormwater, Stormwater Funding Study (highlighted in blue), and Stormwater Management Master Plan.

Stormwater funding study

- August 2013-March 2016
 - 4 advisory group meetings
 - 2 public open houses
 - online survey
 - draft report January 2016
 - Council approval March 2016
- Communications included:
 - News releases
 - Social media
 - Print ads

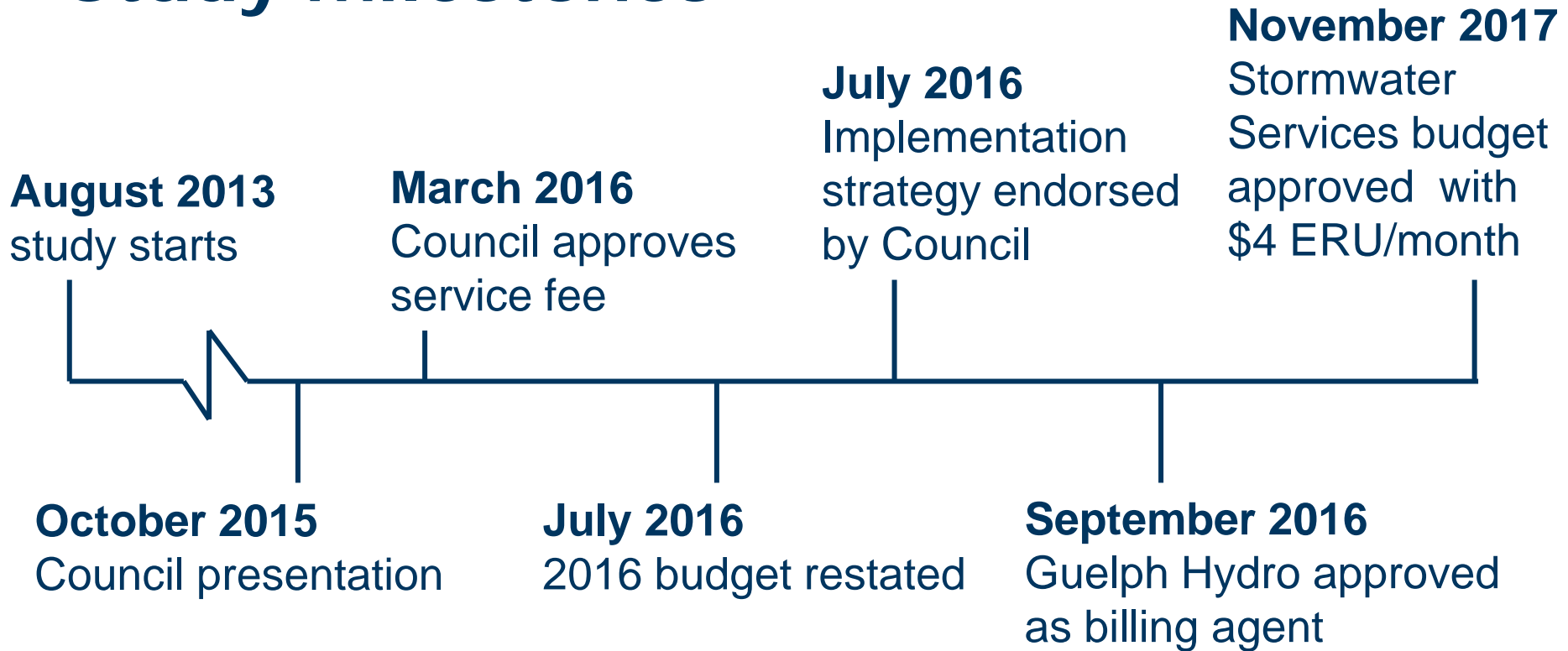


Funding study conclusions

1. Current program does not meet community's needs
2. Increased level of service is necessary
3. Stormwater user fee is preferred
4. User fee should be charged to all properties in Guelph
5. A credit policy should be explored



Study milestones



Impervious areas

Hard surfaces that do not absorb water, e.g.:

- Parking areas
- Rooftops
- Sidewalks
- Patios
- Gravel areas subject to pedestrian, bicycle or vehicular traffic or permanent storage loads
- Recreational hardcourts
- Trails subject to pedestrian, bicycle or vehicular traffic



Stormwater service fee billing units (Equivalent Residential Unit or ERU)

ONE (1) ERU = 188m² = \$4 per month

Residential properties:

ERU billing units = number of dwelling units

Examples:

- single-family detached home = 1 ERU = \$48/year
- apartment building with 20 units = 20 ERU = \$960/year

Non-residential properties:

ERU billing units = impervious area ÷ 188 m² (one ERU)

Non-Residential Property

Example:

City Hall

Lot Size: 10,662.5 m²

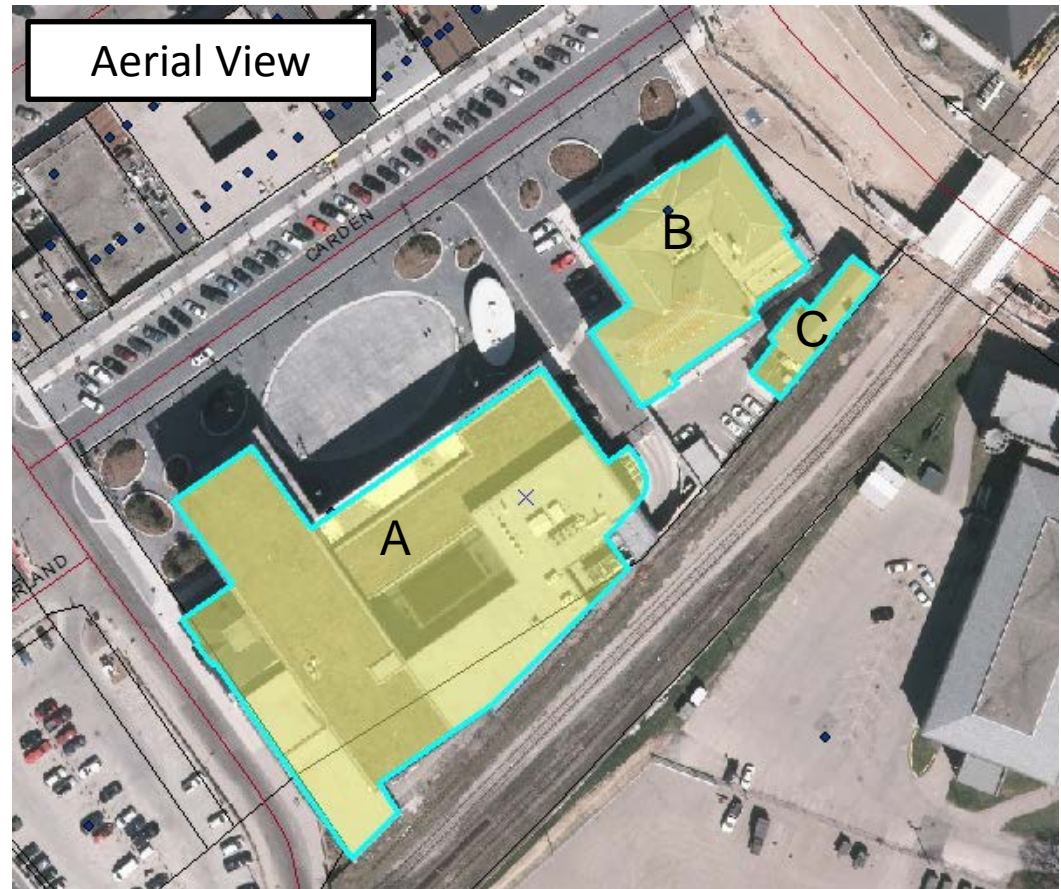
Impervious Area:
7,996.54 m²

Billing units:

$7,996.54 \text{ m}^2 \div 188 \text{ m}^2$
= 42.5 ERU

Charge:

42.5 ERU ×
\$4.00/ERU/month
= \$2,040.00 per year



Next steps: developing a credit policy

- Study initiated October 2016
- Proposing:
 - 3 advisory group meetings
 - 3 public open houses
 - online survey

In 2017, the Stormwater Fees and Charges By-law will be amended to include a Credit Policy that offers a reduction to the base stormwater charge for eligible property owners that have installed, operate and maintain eligible facilities or practices on their property. If awarded, credits would be retroactive to the date of installation/inspection or January 1, 2017, whichever is later.

Credits or incentives?

Credits typically only offered for non-residential properties

- High administration costs may outweigh net savings for residential properties



Residential incentives can include:

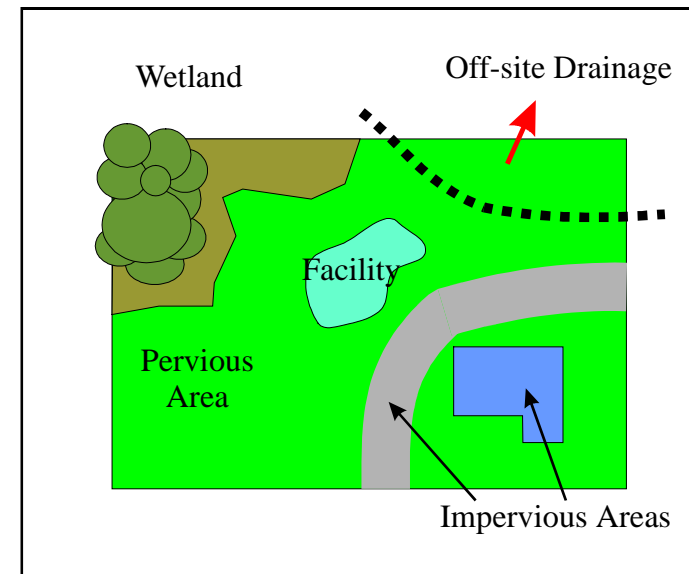
- One-time discounts to offset supply and/or installation costs
- Technical assistance with design, installation and/or maintenance

Examples of residential options:

- rain barrels
- rain gardens
- permeable paving

Credit program considerations

- Amount of stormwater runoff within city boundary
- Opportunities for property owners to provide a community service (e.g., education, spill prevention program, etc.)
- Inclusion of pond or other runoff control on property
- Ability to apply quantity and quality components cumulatively
- Need to meet local design standards
- Need for maintenance (subject to inspection)



City of Kitchener credit policy

- Credit policy adopted, retroactive to the beginning of the utility
- Available to residential and non-residential
- Maximum reduction of 45 per cent to the utility charge
- Off-site facilities or those on permanent City easements not eligible
- Eligible customers must complete application form
 - May be field-verified by City staff
 - Credit revoked if found to be non-functional
 - Application must be renewed by customer on annual basis

City of Kitchener

Residential credit schedule

Credit Component	Maximum Credit	Calculation
Water Quantity	45%	<p>Based on the runoff storage volume provided on the property:</p> <ul style="list-style-type: none"> • 9% - 200-400L (1-2 rain barrels, small cistern) • 18% - 401-800L (3-4 rain barrels, small cistern) • 27% - 801-2400L (large cistern, combination with rain barrels) • 36% - 2401-3200L (large cistern, combination with rain barrels) • 45% - 3201L+ (large cistern, infiltration gallery)
Water Quality	0%	Water quality credits are not available to residential customers, as residential properties typically do not significantly contribute to water quality issues.
Education	0%	Education credits are not available to residential customers.

City of Kitchener Non-residential & multi-unit residential credit schedule

Credit Component	Maximum Credit	Calculation
Water Quantity	25%	Based on the percentage of impervious area on the property that is directed to a stormwater facility, scaled to a maximum of 25%.
Water Quality	15%	Based on the level of water quality protection provided by stormwater facility, as per Ministry of Environment standards: <ul style="list-style-type: none"> • 15% credit – Enhanced protection • 10% credit – Normal protection • 5% credit – Basic protection
Education	5%	Credit available for educating employees/members about flood prevention and pollution reduction topics, as well as posting and distributing educational information provided by the City or other provincial/federal environmental agencies.

City of Mississauga credit program

- Credit program adopted, retroactive to beginning of the utility or installation
- Only available to multi-unit residential and non-residential
- Maximum reduction of 50% of the utility charge
- Eligible customers must complete application form
 - Certified by qualified Professional Engineer
 - May be field-verified by City staff
 - Credit revoked (and City reimbursed) if found to be non-functional
 - Five-year renewal period (requires copies of maintenance logs)

City of Mississauga

Non-residential & multi-unit residential credit schedule

Category	Evaluation Criteria	Total Credit (50% max)	
Peak Flow Reduction	Per cent reduction of the 100 year post-development flow to pre-development conditions of the site.	Up to 40%	Up to 50%
Water Quality Treatment	Per cent of site (hard surface) receiving water quality treatment consistent with Provincial criteria for enhanced treatment.	Up to 10%	
Runoff Volume Reduction	Per cent capture of first 15 mm of rainfall during a single rainfall event.	Up to 15%	
Pollution Prevention	Develop and implement a pollution prevention plan.	Up to 5%	

City of Mississauga non-residential credit evaluation criteria

Peak Flow Reduction (up to 40%)

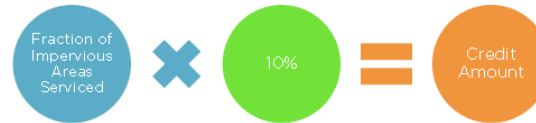
- For full credit: Control 100-year post-development flow to 100-year pre-development rate from entire impervious surface area(s) of site



29

Water Quality Treatment (up to 10%)

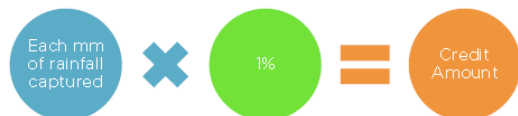
- For full credit: Direct all impervious areas of site to approved on-site quality control BMP



30

Runoff Volume Reduction (up to 15%)

- For full credit: First 15mm of rainfall landing on all impervious areas of site during a single rainfall event is captured



31

Pollution Prevention Plan (up to 5%)

- For full credit: Pollution Prevention Plan satisfies criteria set out in Schedule 'A' of the City's Storm Sewer By-law 259-05 and is fully implemented

Percent of Pollution Prevention Plan Implemented	Credit Amount
40%	2%
60%	3%
80%	4%
100%	5%

32

Open discussion and questions

1. Would you like to see both a residential and a non-residential stormwater service fee credit program created by the City?
Does the cost of administration influence your decision?
2. Would you apply for a credit to alter your property to control runoff if the credit were minimal? Would you be more inclined to use City incentives, e.g., coupons , one-time rebates
3. What types of residential activities should receive credits?
Consider:
 - Quantity control: rain barrels
 - Quality control: infiltration trenches, rain gardens
 - Education: community group involvement

Open discussion and questions

4. What types of non-residential activities should receive credits?

Consider:

- Quantity control: rain barrels, down spout disconnection, underground storage
- Quality control: bio retention swales, porous pavement, oil/grit separators
- Education: employee education/training

5. If you were the City of Guelph, how would you enforce the credit program? e.g., applications, inspections, enforcement, renewals

Next Steps

Review of Comment Sheets (December 2016)

- Available tonight

Online survey (December 2016)

- Further opportunity for public feedback

Public Open House #2 (Q1 2017)

- Provide feedback on staff's credit program framework as it is developed including:
 - maximum credit amount
 - credit criteria/technology standards
 - administrative items

Thank you for your time!



guelph.ca/stormwater